

### ABSTRACT OF THE DISCLOSURE

There is provided a method for automatic operation of a vehicle comprising an engine, a starter motor, an engine clutch, and a plurality of vehicle systems. After detecting that the engine is running, the vehicle systems are checked to ensure an acceptable status for shutting down the engine. A negative torque is applied to the engine to shut it down. Vehicle systems are monitored until they indicate that the engine should be restarted. The engine is restarted, and a successful start of the engine is then confirmed. Similarly, there is provided a method for the cold start of a vehicle as above. The starter motor is powered up with an initial torque and vehicle systems are monitored to determine whether the engine should be started. The engine is started from the torque of the starter motor, and a successful start of the engine is then confirmed.